

MAY-JUNE 1980

Volume 71 Number 3

Seventy-five Cents

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# California GARDEN

Annual Meeting

Covered-Dish Dinner—Installation of Officers

A delightful evening with  
Bob Howard & Junior Gantz  
Entertainers Deluxe  
**Monday, June 16, 1980, 6:30 p.m.**  
Casa del Prado, Majorca Room, Balboa Park  
San Diego, California

California Garden Exhibit  
and  
Magazine Sales Table  
Southern California Exposition  
(Garden Section)  
Del Mar, California  
June 21 thru July 6, 1980  
10:00 a.m. to 6:00 p.m.

TOURS

- May 15 (Thurs.) GETTY MUSEUM, Malibu, California — \$12.50 (No host lunch stop)  
Departs Balboa Park Organ Pavilion 8:00 a.m. and La Jolla Library 8:30 a.m.  
For information and reservations call San Diego Floral Asso. 232-5762
- June 10 (Tues.) FARMERS MARKET and the LOS ANGELES ART MUSEUM — \$12.50 (No host lunch stop)  
Departs Balboa Park Organ Pavilion 8:00 a.m. and La Jolla Library 8:30 a.m.  
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SHOWS

- May 3 & 4 GREEN THUMB SHOW at the San Diego Wild Animal Park  
Sponsored by the San Diego Epiphyllum Society  
Saturday and Sunday, 9:00 a.m. to 5:00 p.m.
- May 11 SAN DIEGO EPIPHYLLUM SOCIETY ANNUAL SHOW "Galaxy of Eppies"  
Majorca Room, Casa del Prado, Balboa Park, San Diego, Calif.  
Sunday, 11:00 a.m. to 5:00 p.m., Free
- May 17 & 18 SAN DIEGO GERANIUM SOCIETY 8TH ANNUAL SPRING SHOW  
Majorca Room, Casa del Prado, Balboa Park, San Diego, Calif.  
Sat. Noon to 5:00 p.m., Sun. 10:00 a.m. to 5:00 p.m., Free
- May 17 & 18 GREEN THUMB SHOW at the San Diego Wild Animal Park  
Sponsored by the San Diego Bromeliad Society  
Saturday and Sunday, 9:00 a.m. to 5:00 p.m.
- May 24 & 25 PALOMAR DISTRICT, CALIFORNIA GARDEN CLUBS, INC., STANDARD FLOWER SHOW  
Conference Building, Balboa Park, San Diego, Calif.  
Sat. 1:00 to 5:30 p.m., Sun. 10:00 a.m. to 5:30 p.m., Free "Palomar Connection"
- May 24 & 25 GREEN THUMB SHOW at the San Diego Wild Animal Park  
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- May 31 & June 1 SAN MIGUEL BRANCH OF THE AMERICAN BEGONIA SOCIETY  
"Begonia Portraits"—dedicated to Mrs. Alice M. Clark  
Sat. 1:00 to 5:00 p.m., Sun. 10:00 a.m. to 5:00 p.m., Free
- May 31 & June 1 SAN DIEGO BOTANICAL GARDEN FOUNDATION ANNUAL PLANT SALE  
Patio "A", Casa del Prado, Balboa Park, San Diego, Calif.  
Saturday & Sunday, 10:00 a.m. to 5:00 p.m.
- May 31 & June 1 GREEN THUMB SHOW at the San Diego Wild Animal Park  
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- June 7 & 8 SAN DIEGO CACTUS & SUCCULENT SOCIETY SHOW  
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- June 21 & 22 SAN DIEGO FUCHSIA & SHADE PLANT CLUB SHOW  
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- June 21 SOUTHWEST HEMEROCALLIS SOCIETY SHOW "Daylilies on Parade"  
Plaza Camino Real Shopping Center, Carlsbad, Calif.  
Saturday, Noon to 5:00 p.m., Free
- June 28 & 29 EXOTIC PLANT SOCIETY SECOND ANNUAL SHOW  
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Sat. & Sun., 11:00 a.m. to 5:00 p.m., Free





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Front Cover: The drawing of *Cassia alata* is from a collection of paintings donated to *San Diego Floral* by Kathleen Crawford. Mrs. Crawford's paintings have achieved national recognition.

Back Cover: Walter Bunker enjoying the beauty inside the Botanical Building, Balboa Park, San Diego, California.  
(Photo by Marj Mastro)

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# A Living Bouquet

by George James

IF YOU WANT to add beauty to a patio, an area under trees, or any other partially shaded place, grow a living bouquet. A hanging basket planted with a combination of flowering plants in many colors will look like a huge bouquet when in bloom. Annual plants are most often used in these baskets, the same kinds of annuals grown in the garden for color and for cutting.

In gardens many of these are grown in locations that range from full sun to part shade. When grown in a hanging basket it is easier to keep the roots moist in partial shade or filtered light. Also there is less danger of the roots being damaged by the soil becoming too warm, as it could in the sun. Each kind of annual plant has its preference for the amount of sun or shade it needs to thrive. When a basket is planted with several, say six, kinds of plants with varying degrees of tolerance to sun and shade, the chance of success in a wide range of locations is very likely. Plants grown in baskets seldom grow as large as they would in the garden.

## • TYPES OF BASKETS

Plants that make the most graceful planting for the sides of the basket are those with flexible stems that will droop down. Plants that are naturally upright and stiff in habit often can be made to conform to the desired shape by pinching off their tips. This will encourage new, more flexible stems to form at the base. Upright plants can be used advantageously in the top of the basket, to add height to the planting.

## • FLOWERING PLANTS

Mentioned here are a few of the spring, summer, and fall flowering plants that adapt to varying degrees of shade and light, but not to deep shade:

*Ageratum*—medium blue flowers.

*Begonias*—red, white or pink flowers and some varieties have leaves that turn red if they have enough light.

*Alyssum*—white flowers and a heavenly odor (birds love to pick their leaves).



*Pansy* and *violas*—in a wide range of colors.

The plants listed below can be planted at the same time as those above, but will need more sun:

*Bush sweet peas*—started in pots and transplanted, or from seeds sown where they are to grow.

*Calendula*—bright shades of yellow and orange.

*Snapdragons*—dwarf, in a wide range of colors.

*Lobelia*—usually a beautiful deep blue, but there are light blue and white varieties as well.

*Dahlias*—dwarf, wide range of colors.

*Marigold* and *zinnia*—in small and medium varieties.

*Portulaca*—jewel tone colors.

*Verbena*—choice of red, white, pink, and blue or lavender.

Taller plants that could be used in the top planting and which like a good deal of sun are:

*Giant zinnia* and *marigold*.

*Celosia*, *coxscomb*—good shade of red and orange.

(Continued on Page 70)

Salvia—brilliant red.

Schizanthus—poor-man's orchid.

#### • PERENNIAL FLOWERING PLANTS

Some perennial garden plants that do very well and flower freely enough to be used in baskets are:

Trailing lantana—lavender.

Ivy geraniums.

Lotus—gray-green, needle-like leaves; beautiful orange flowers.

For deep shade or winter and early spring flowering, two suggestions are:

Cineraria—many colors and variations.

Primula—many varieties; the Fairy primrose is especially nice.

However, plants that have been developed for basket culture are now becoming available. 'Scarlet Poncho' is a coleus with flexible stems and a cascading habit. Its leaves are large and heart-shaped and it does not flower until the plant is well developed. (Coleus flowers are not attractive and are usually picked off so the vigor of the plant is directed to growth instead of seeds.) 'Pink Avalanche,' a F<sub>1</sub> hybrid fibrous begonia of pendulous habit, bears prolific crops of pink flowers. There will, in the future, be available varieties of other plants especially hybridized for growth in hanging baskets, so watch for them at your nursery.

#### • SIZE AND TYPE OF BASKET

A wire basket is best because the wires can be spread to make openings in the side of the basket through which plants can be passed. Wire baskets are made in several sizes. The size selected should be in scale with the area in which it will be placed permanently, and appropriate in size for the plants being grown. The hanging baskets and green moss which is needed to line the basket can be found in any garden supply outlet. Enough moss should be bought to make a lining about an inch thick, when compressed, over the bottom and sides of the basket. The commercially prepared potting soil, sold by garden supply outlets, is satisfactory and probably better than can be made at home.

Soak the moss thoroughly before using. Place a thick layer of wet moss, at least an inch thick when compressed, over the bottom and reaching about 2 inches up the sides of the basket, then fill with soil to the top of the moss. Openings are made by bending the wires so that plants can be set from 4 to 6 inches

apart around the basket. Using plants from either pony packs or pots, spread the wires far enough apart so the top of each plant can be passed through the opening from the inside and the root ball kept inside the basket. With this procedure there is little or no disturbance of the roots and no damage to the top. If one attempts to pass the root ball from the outside there is a good chance of damaging the roots; the ball is more rigid than the top and cannot be manipulated as easily.

Soil is spread and firmed around the root ball before covering. More moss is added up the sides to cover another 3 to 6 inches and more soil is added to the top of this moss. More openings are made and another row of plants set and covered, following the same method as used on the first row. This procedure is followed until the top of the basket is reached. The soil at the top should be at least an inch below the rim of the basket so that water will be retained.

#### • WATERING

After the top planting is put in, the basket is watered and set in a cool, draft-free location for a few days until the plants become established before moving it to its permanent location. In spring, when the weather is mild, the basket will need to be watered every second or third day, filling the top of the basket and wetting the sides; as the weather becomes warmer and the plants larger, daily watering may be needed. Do not let the soil become dry at any time, but do not water when the moss at the bottom is wet. Baskets can be soaked in a tub or bucket of water or set where a sprinkler will wet them if they need to be soaked when the weather is excessively hot or when there are hot, dry winds blowing.

#### • FERTILIZING

The frequent watering leaches the nutrients from the soil and this can be replaced by adding a small amount of liquid fertilizer to the irrigation water each time, or by applying a dilute solution after each watering. The amount of fertilizer to use can be calculated by dividing the amount specified on the label for a period of time, say a month, by the number of waterings anticipated during that period. To illustrate, if the fertilizer being used directs one teaspoon to a gallon of water per month and one expects to water eight times during the month, use one-eighth of a teaspoonful of fertilizer to a gallon of water each time the plants are irrigated.



## • PLANT GROOMING

The life of the plants can be extended and their appearance improved if they are not allowed to set seed. This is accomplished by picking off the old flowers and developing seed capsules every few days. When the plants have finished blooming the basket can be replanted. It is best to discard the soil but the moss may be reused. Some new moss will be needed to replace any that has decayed; this new moss should be placed next to the wire, giving the basket a fresh appearance.

## • VEGETABLES AND HERBS

Vegetables and herbs can be grown in baskets too, following the same procedures given for flowers. Tomatoes are a natural for this, the dwarf and semi-dwarf being the easiest to control. The small-fruited red and yellow ones are also suitable, but will grow to greater length. Cucumbers can be used—compact or bush types lend themselves best to basket culture.

Seeds of New Zealand spinach, lettuce, and Swiss chard can be started in pots and transplanted, or seeds can be sown in the basket. Harvest these by picking off the outer leaves and allowing the plant to remain and produce more leaves. During the winter months any kind of edible pea can be grown although bush varieties will be best adapted to this style of culture. Parsley and mint are always reliable plants in baskets and many more herbs will be successful.

The kinds of plants to avoid for basket culture are those that need a great deal of room, such as corn; those that have such large fruit they would break the vine, such as melons or pumpkins; and root crops that need depth for the edible root to develop. The vegetables will need the same frequent irrigation and fertilization as has been recommended for the flowers, and most of the vegetables need at least half a day's sun to do well. Given the proper location and care most vegetables and herbs, except those listed above, can be tried with a good chance of success.

With a little imagination and effort living bouquets of flowers and fresh-from-the-garden vegetables can be grown in hanging baskets. □

Photo courtesy of Presidio Garden Center, San Diego

George James is a retired nurseryman, horticultural instructor, and down-to-bedrock gardener. His horticultural knowledge is unsurpassed.

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June 27-28

Freddy Fender  
June 29

Pablo Cruise  
June 30-July 1

Eddie Rabbitt  
July 2-3

The Lennon Sisters  
July 4-5

Pat Boone  
July 6



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# TREE CASSIAS

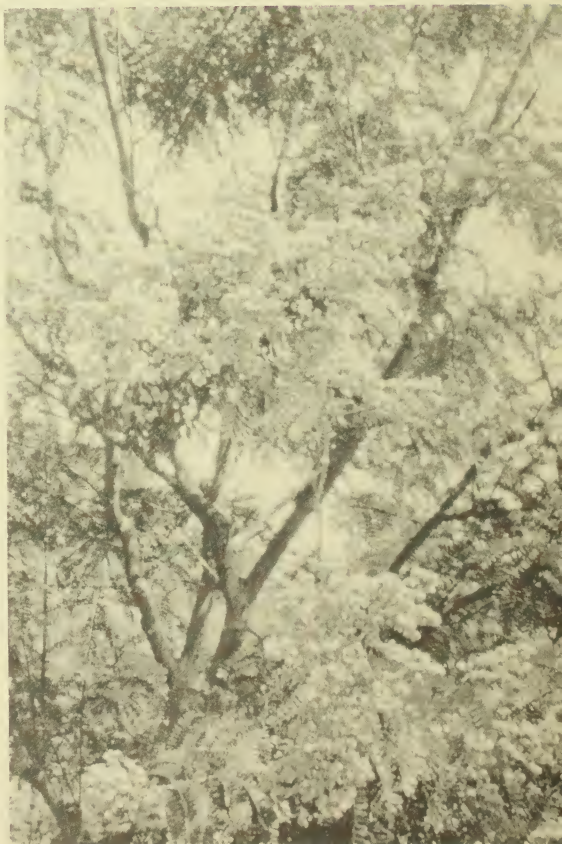
## GOLDEN OPPORTUNITIES OVERLOOKED

by Samuel Ayres Jr., M.D.

**GOLDEN SHOWER TREE!** The name recalls a visit to Hawaii where this spectacular tree (*Cassia fistula*), a native of India, adds its fountain of gold to the thrilling beauty of other flowering trees, such as the royal poinciana and the African tulip tree.

The early settlers to tropical Hawaii found the landscape relatively colorless and were responsible for introducing most of the brilliantly flowered trees, shrubs, and vines which contribute to making the islands a tropical paradise. Most of these showy plants, however, will not thrive in southern California's Mediterranean-type climate, which differs markedly from a tropical climate and is characterized by warm dry summers and cool wet winters, with temperatures occasionally dropping to freezing. Such climates are found in the Mediterranean basin, large parts of Australia, South Africa, some areas in South and Central America and Asia.

While southern California is enriched with showy spring wildflowers, there are relatively few native flowering trees and shrubs, and these seldom thrive under cultivation. We have no reason, however,



Right: *Cassia multijuga* from Brazil

Photo by author

(Continued on Page 74)

to envy Hawaii its golden shower tree, which is too tropical for our climate. Over the years, and especially during the past 30 or 40 years, many new flowering trees have been introduced into southern California, trees which have added greatly to the color and beauty of our landscape. By proper selection, it is possible to have trees in bloom every week in the year.

Outstanding among the flowering trees which have been introduced in recent years are the cassias, which are members of the pea family, Leguminosae. Shrub-type cassias have been grown for many years, but the tree types are relatively new and are fully as beautiful as the golden shower tree of the tropics, but for some reason they have been neglected by commercial nurseries and landscape architects. The Los Angeles State and County Arboretum in Arcadia has a good collection of mature specimens, and they may be seen also in other botanic gardens, in a few parks, private plantings, and along one street in La Canada Flintridge.

I have had a highly satisfactory personal experience with four species of tree cassias, two of which I introduced into California.

*Cassia carnavale* is native to Argentina, and to the best of my knowledge was the first tree cassia grown in California. I obtained my specimen in a one-gallon can, shipped by express from Ed Menninger, the "flowering tree man" in Stuart, Florida, nearly 40 years ago, and planted it on my property on the edge of a canyon in La Canada Flintridge. It survived the 1949 freeze when the temperature dropped to 27° for three consecutive nights, accompanied by six inches of snow. It also survived a fire in our canyon and another freeze in December and January, 1978-79, with a reading of 28° for three nights.

*Cassia carnavale* (sometimes called *C. excelsa*) has an upright growth habit, attaining a height of 25 to 30 feet, making it a suitable street tree. It usually blooms for five or six weeks in September and October, and is covered with golden yellow flowers in clusters 12 to 18 inches long. The crown of gold tree is an appropriate common name. A few of these cassias are planted as street trees on Oakwood Avenue in La Canada Flintridge. In view of their frost tolerance, their size, shape, and especially their golden crowns bloom in early autumn, hundreds more of them on streets and in parks would transform southern California into a golden paradise.

*Cassia leptophylla* from Brazil is more suitable

for specimen planting because of its umbrella shape. It blooms for about six weeks during June, July or August, with clusters of large golden yellow flowers, with individual flowers measuring up to 3 inches in diameter and clusters nearly as large as basketballs. The size, shape and color of the flowers suggested golden medallion tree as a common name. The flowers are followed by interesting seed pods up to 12 inches in length.

*Cassia multijuga* from Brazil may grow as a multitrunk tree. Our own specimen is about 15 to 20 feet high, having a shrub-like appearance, and for about six weeks or more in late August, September and October is covered with masses of small butter-yellow flowers on cone-shaped sprays 12 to 18 inches long, giving the appearance of a golden fountain which suggests golden fountain tree for a common name.

*Cassia liebmanii* from Mexico was received by me a number of years ago from the United States Department of Agriculture as a rooted specimen, and to the best of my knowledge this was its first introduction into California. It has now attained a height of 20 feet or more and has a slender form with horizontal branching, giving it a pagoda-like appearance. It blooms twice a year, spring and fall, with clusters of golden yellow flowers, suggesting a common name of golden pagoda tree.

There may be other tree cassias growing in California or awaiting introduction, but the four species described above have demonstrated their value in adding color and beauty to the southern California landscape. They are nearly evergreen except for some loss of foliage during hot and dry winds and in unusually cold weather, although all four species have tolerated temperatures as low as 28° without damage. They set seeds freely, grow easily from seed, and bloom when only a few years old. All four species are described, and *C. carnavale* and *C. leptophylla* are illustrated in color in *Color for the Landscape*, available at Los Angeles Beautiful, 404 South Bixel Street, Los Angeles, CA 90017.

The crown of gold tree, the gold medallion tree, the golden fountain tree and the golden pagoda tree are every bit as beautiful as the golden shower tree of the tropics, and are happy in southern California's climate. What are we waiting for? □

*Dr. Ayres, a practicing physician, has gained national recognition as a specialist in flowering ornamental trees and shrubs that he and his wife Helen collect and propagate.*



# MARIGOLDS

by Josephine Gray

EVERY NEW GENERATION of gardeners seems to be confused about marigolds, and a good deal of what we read only adds to the confusion. David Burpee in his zeal to make marigolds the national flower had tried to make the African marigold *Tagetes* conform to the "Mary's-gold" of song and legend which belong to the pot-marigold or calendula of the 16th century. We also had researchers try to find that Cortez had brought seeds of the big many branched marigolds and sowed them in Mexico, however this was not proved. *Tagetes* (tay-geet-eez) is native from New Mexico to the Argentine.

The marigold is one of the most important annuals in our garden, bright and gay in its striking shades of orange and yellow. It is a fine cut flower, easy to grow and, of no little importance, it is most useful in the garden, having excretions from foliage and roots which aid in control of nematodes and whitefly; both tomatoes and potatoes are benefited. This also applies to another variety of *tagetes*, the small French marigold (*T. patula*) which is useful as a border plant.

A great deal of work has been done on the marigold. For those who do not like the strong pungent aroma, one variety has been made scentless. Mr. Burpee worked for years to produce a white marigold and offered ten thousand dollars for seed that would produce one. In 1975 he announced the winner, and his later catalogues offer "the first white marigold" with promises of other bigger, better whites. Hybridizers have done much work on the little French marigold (which is no more French than the large one is African) to make it more and more attractive. When I first grew these more than twenty years ago, they were scrubby little plants whose flowers did not last well either cut or in the garden. The plants were constantly covered with dead-heads that were impossible to keep cut off, making the border ragged and untidy looking. Now the little plants have been

improved, they grow about a foot tall and are neat and compact. They produce fully double 2-inch flowers in good shades of orange, yellow, and red.

The tall marigolds are particularly desirable as cut flowers. A big Mexican bean pot filled with these brilliant blossoms, with here and there one of Mr. Burpee's "nearest to white" for accent, makes a long-lasting summer bouquet worth looking at. Be sure always to strip the stem of foliage below the water line.

Both varieties, the tall and the French, are of easy culture. They may be sown early in the greenhouse, but I find that they, like zinnias, do better if I wait until it warms up a bit and then sow them where they are to bloom. They produce prodigious quantities of seed which you may save to broadcast along alleyways or barren fields. If you do not see any results you can be happy thinking that the birds have eaten the seeds!

There is nothing of myth or legend about these marigolds except the dubious information that *tagetes* may have been named for an Etruscan god, Tages. However, about the pot-marigold (*Calendula*) there are many charming and interesting bits that float up from the past. It has been cultivated for centuries, and is called *calendula* from the Latin, *calends*, meaning through the months, in allusion to the long blooming period. Because it followed the sun, it was known as summer's bride or husbandman's dial. It was used in a multitude of diverse ways—in love potions, and wedding bouquets, and in a conserve to dispel depression. In medieval cook books, there are recipes for the use of the blossom in cooking—both for coloring and for flavoring—thus the name, pot-marigold. It was also used to reduce fever and repel the plague. Mr. Turner in his *New Herbal* wrote "some use it to make their heyre yellow with the flower of the herb, not beyne content with the natural

(Continued on Page 76)

color God had given them." In our era before the day of the beauty shop, chamomile was used to lighten and brighten the "heyre"!

The Parks seed catalog offers a variety called 'Zvolneck's Crested' which I grew for many years with a great deal of pleasure. The blossoms are large and the colors are soft apricot and yellows; the wide centers are tufted or quilled, creating an unusual effect.

Calendulas like cool weather, so if we have a normal winter with an average amount of sun and rain, they may be sown in the open in late fall so they can get a good start and some bloom time before it gets too hot. They last longer too if the dead-heads are kept picked off before their strength goes into making seed. They make a gay and pretty border around an herb plot, neat and tidy; they tie the bed together with a yellow ribbon.

I have not been able to find any direct reference to calendula as "Mary's-gold" or "Mary-bud"; it may be that they were called "Mary's-gold" because at a particular time of the year they were the only flower available for the altar. We may be pretty sure that the pot-marigold of Shakespeare's day was single, for in his song "Hark! Hark! the lark" he sings "and winking Mary-buds begin to open their golden eyes," so they must have had one row of petals or two at the most, which closed when the sun went down and opened again when "Phoebus' grin arise."

Marigolds of all kinds have so many virtues that it is a joy to grow them. Even those who do not yet know what color their thumbs are can grow and enjoy them for their bright and gay bloom. □

Josephine Gray is an artist with words and with horticulture. Her garden, featuring herbs, has been a center of beauty for many years.

*Ghost drawing with marigolds  
by Beverly Kulot*

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# WHY PLANT PATENTS?

by Dr. Donald P. Watson

MANY POPULAR NEW plants introductions are patented. Plant patents were established to offer agricultural and horticultural producers the same benefits given manufacturers. They provide incentive for achievement in plant breeding and place agricultural products on a basis of economic equality with manufactured products.

Since 1802 anyone who invented or discovered "any new or useful process, machine, manufacture or composition of matter, or any new and useful improvements thereof" could obtain a patent. A patent is granted by the government to the inventor and his heirs for exclusive right to the invention throughout the United States for the term of 17 years. This patent reserves the right to exclude others from making, using, or selling the invention.

Not until 1930 was it possible to patent a new plant. A plant patent protects the person who invents or discovers and reproduces by cuttings, buds, grafts, divisions, layers (asexual methods) any distinct new kind of plant. Newly discovered plants may be the result of sports (bud variations that suddenly appear), mutants (new and distinct seedling variations from self-pollination) or hybrids (new and distinct seedlings from cross-pollination of two species).

When a person or agency is granted a plant patent, all others are excluded from reproducing or selling that plant. A new plant may be distinguished from others by its habit of growth; freedom or immunity from disease; resistance to cold, drought, heat, wind; color of flower, leaf, fruit, stem; flavor; productivity; fragrance, etc. When offered for sale, each plant must have the plant patent label attached as proof of legal right to have propagated, used, or sold the plant.

The patent procedure is followed for many of the better new introductions. It should be understood that it is merely a certification by the government that this is a "distinct and new" plant. It in no way guarantees that it is of any particular quality. However, most people who deal in plants would not go to the expense and trouble of patenting a plant they did not think had some particular merit.



*Paul Ecke patented poinsettia*

Usually plants that have been patented are a higher price than those that have been on the market for a number of years. Some of Paul Ecke's poinsettias are good examples of many years of breeding for special features which justify this increase in cost.

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Photo by Betty Mackintosh

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*Dr. Watson, Professor Emeritus, Department of Horticulture, University of Hawaii, author of a number of books on horticulture, enjoys gardening as well as serving on the Botanical Committee of the San Diego Zoological Society.*



# Ask for Huh-mý-kuh



by Bill Gunther

WHEN YOU NEXT have occasion to visit Tijuana, go to the produce department of any supermarket and buy a kilo of Jamaica to take home. Ask for "huh-my-kuh"; that is the Spanish pronunciation of Jamaica. It is perfectly legal to import the stuff.

In Mexico, a kilo of Jamaica will cost you very little and it will be of more interest and provide you far more pleasure than would any of the souvenir items that are sold at every tourist stand in the town. A kilo of Jamaica is more than two pounds of the dried flower heads of a very special species of *Hibiscus*, the specific name of which is *sabdariffa*.

Most California gardeners think of hibiscus as being a decorative perennial shrub with large red flowers; they are thinking of *H. rosa-sinensis*. But in the genus *Hibiscus* there are also about 250 other species, among which is *H. sabdariffa*. Originally, *H. sabdariffa* grew only in tropical Africa, where native negro tribes have for untold centuries used it to color and flavor their drinks. When Europeans came to Africa to take the negroes into slavery, they also took seeds and plants of this hibiscus for introduction into other tropical areas. In the new world, Jamaica was the first place to which *H. sabdariffa* was introduced into cultivation. In Jamaica's tropical climate the plant thrived, and multiplied, and went wild, and quickly became just as popular in Jamaica as it was in Africa.

Thereafter, Jamaica was a reprovisioning stop for Spanish sailing ships enroute to Mexico. Among the provisions they took to Mexico from Jamaica were seeds and dried blossoms of *H. sabdariffa*. The Spanish forces in Mexico knew that the plant had been brought to them from Jamaica, for which reason they assumed that it was a native of that island; therefore they called the plant Jamaica. In some areas, *H. sabdariffa* is known as roselle; in other areas it is called sorrel, but in Mexico, even to this day, Jamaica is the one and only popular name for this very popular plant.



Bloom and surrounding calyx —  
*Hibiscus sabdariffa*  
in the stage ready for harvesting and drying

Today, in some parts of Mexico, every rancho grows Jamaica, along with corn and beans, as a staple crop. Under cultivation in central Mexico, plants of *H. sabdariffa* grow up to 6 feet in height, with stems which are so tough that in some localities their fibers are used in making rope. It is not as decorative as our common garden hibiscus because its blossom is surrounded by fleshy red calyx bracts which prevent the flower from opening fully. The flower heads,

including the calyx, are harvested while still immature. After being dried in the sun they will keep almost indefinitely for use whenever desired. It is this dried form which is available in the grocery stores of Tijuana.

To make a delicious and most colorful Jamaica drink, simply put a couple of cups of dried flowers into a large pot of water and bring to a boil, simmer for 10 to 20 minutes, add sugar to taste, let it cool and serve with ice. The acid content of Jamaica gives the drink a tangy bite; the distinctively different flavor somewhat resembles that of red currant; the color is just as brilliant a red as any of the commercial synthetic tropical punch mixes which are sold in our own grocery stores and the cost is much less. If you are planning a party, serve Jamaica instead of a commercial mix, and leave in the boiled blossoms—they will attract as much attention as will the unique flavor. Your cold drink will serve as a conversation piece.

Because of the color and flavor, Jamaica also is excellent when used as an additive in making jams, jellies, sauces, desserts, and sweet pastries. Try it instead of lemon juice or tonic water when mixing your favorite cocktail. A Mexican acquaintance who happens to be a confirmed alcoholic volunteers his opinion, for whatever it is worth, that Jamaica is the very best possible mixer when making highballs of tequila, rum, gin, or vodka—but he says Jamaica never should be used as a mixer with whiskey. He squeezes a slice of lime into his drink to further enhance the acid bite. A Panamanian acquaintance advises that nearly all Panamanians think that *H. sabdariffa* is a native of Panama, where it is commonly called saril (probably a variant of sorrel) or acedera (indicative of its acidity) but never Jamaica. There, because of the high humidity and daily rains, the blossoms cannot be sun-dried, but rather are sold fresh, primarily during the Christmas season, when the bright red color of the drink adds to the decor of the holiday. In Panama, in addition to sugar, ginger also is added to accentuate the flavor and fragrance.

Why then, if *H. sabdariffa* is so popular in parts of Mexico and Panama and tropical Africa, is it not equally popular in California? The answer, very simply, is that this plant does not like the mild climate of coastal California. It wants more heat. Our mild climate is ideal for us, but it is not ideal for some very desirable plants, including Jamaica. It

grows poorly here. But no matter; we do not need to grow it ourselves. For us, it is far easier and far less expensive to go to Tijuana and buy a kilo of dried blossoms from plants which were grown in the hot climate of central Mexico. □

*Note: An editor of this magazine once planted Jamaica seeds, got two plants about a foot tall, with one flower each, and gave up.*

Photo by BILL GUNTHER

Bill Gunther, associate editor, musician, director of Quail Botanical Gardens, Encinitas, California, former editor of the bulletin for Region 15 of the American Iris Society still finds time to maintain an unusual garden featuring Louisiana iris and palms.

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# Growing Cacti

by John B. Myers

LOOKING FOR A new hobby? Consider the cacti—they have much to offer.

Growing cacti is a versatile hobby—it is easy to get pleasing results in a variety of ways on just about any size-scale one chooses. Plants no larger than a baby's fist will bloom with bright yellow flowers on a sunny windowsill, or, in mild climates, the garden can be landscaped with strange and weird shapes and flowers that rival the orchid.

There are other attractions: most cacti are rather easy to grow, they require a minimum of attention, have no significant disease problems, are novel, interesting, different, and the flowers, in size and number, are out of all proportion to what would be expected from such compacted plants.

It is easier to get started than it is to stop—people get “hooked” after the first plant or two.

But first what is a cactus anyway? They are plants, of course, that grow from seed but they have so many distinct characteristics that they are separated from all other plants into just one plant family—the Cactaceae. Very specifically, a cactus is: a perennial plant, the seedlings have two leaves, the plant has a special organ called an areole, the flowers have numerous stamens and a divided stigma, and the fruit is an undivided one-celled berry that forms below the petals.

This definition is probably no way to capture the interest of a would-be hobbyist but it had to be said and the sooner the better. Note that it did not mention prickles or spines and that is because some cacti just do not have that protective armament.

The areoles, so distinctly the mark of a cactus, are those small spot-like areas that cover the plant in geometric patterns. They are the sites of the spines and are usually the places where the flowers emerge. The areole also grows hair and wool and the sharp little bristles called glochids.

Surely everyone has seen a cactus or two and has a fair idea of what they look like. But the range of their size, shape and design is truly amazing—from flowering plants of less than one cm. to giant branched trees to 12 meters high.

The hobbyist, of course, must grow plants he can manage, mostly of a size that can be grown in a pot and of a weight that can be moved about. This still allows for an extensive range of interesting forms.





# as a New Hobby

Small round balls, clusters, stout columns, thin stems and flat pads. In most cases the surface of the plant body will be constructed of tubercles or accordion-like ribs. The surface covering will range from complete

bareness to dense hair and spines. The common names of certain groups of cacti further describe what they look like: barrels, candelabras, organ pipes, living rocks, prickly pears, hedgehogs or porcupines, pincushions, stars, torches, fishhooks, melons, etc.

If you are interested in plants you probably already know some "botanese." Cactus names are not really difficult. Many of their botanical names are based on the names of people or places and the rest are mostly a combination of borrowed prefixes and suffixes (mostly Greek) that describe the plant, the flower or some other characteristic.

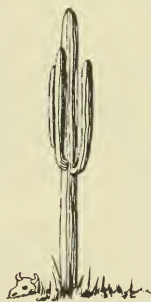
How does a newcomer get started and which plants are suitable for a beginner? Several hobbyists were asked to suggest a few cacti that would represent a diversity of form, color, and flower, yet be plants that are easy to care for. They replied with botanical names, of course, and gave the reasons for their choice. Among those suggested:

- *Cephalocereus senilis*—long white hair, the old man cactus.

(Continued on Page 82)

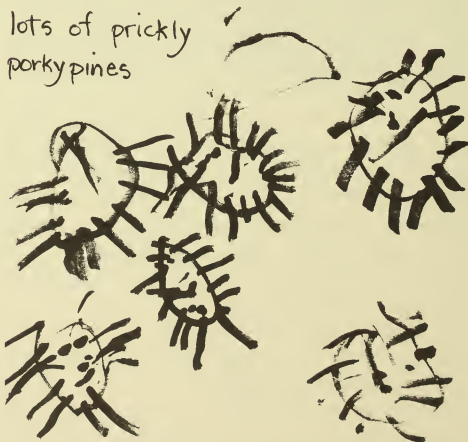
Left: Cactus hobby becomes landscape accent

Photo by J. B. MYERS

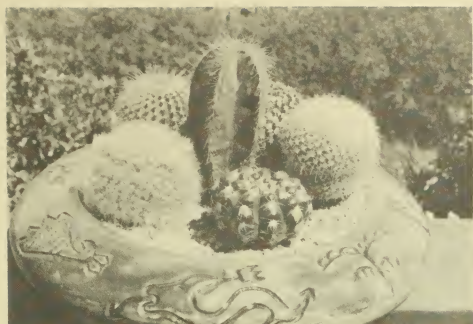


Right: Certain cacti look like: barrels, candelabras, organ pipes, living rocks, prickly pears, hedgehogs or porcupines, pincushions, stars, torches, fishhooks, melons, etc. —

Our artist here is JENNY BAKER, age 4½



"PORCUPINES"



*Small cacti combined in dish garden*  
J. B. Myers photo

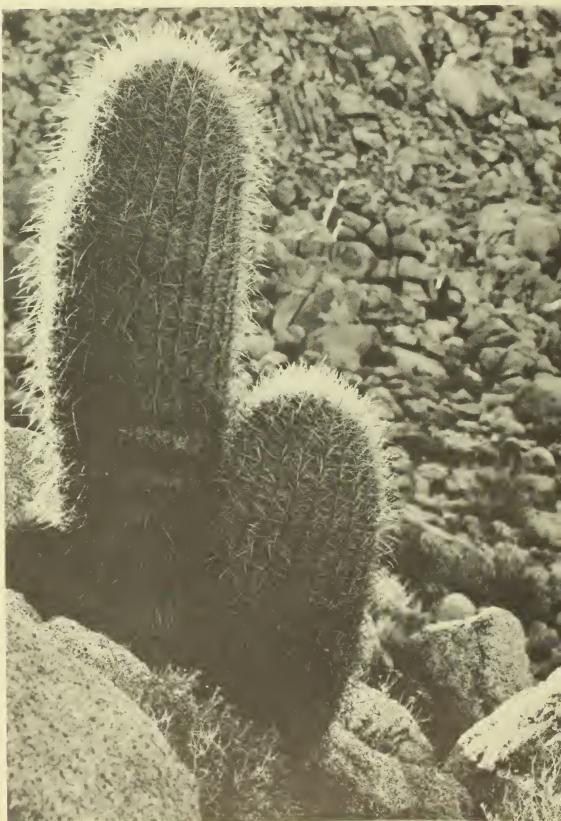
- *Chamaecereus sylvestri*—the peanut cactus, for form and flowers.
- *Echinocactus grusonii*—the strikingly beautiful golden barrel.
- *Echinopsis*—any one of the hybrids for their large colorful flowers.
- *Ferocactus latispinus*—for shape and robust spination.
- *Hildawinteria aureispina*—fast growth, long golden-spined branches, profuse red flowers.
- *Mammillaria elongata*—compact, good design, several colorful varieties available.
- *Mammillaria hahniana*—globular, dense spination, good flower production, an overall eye-catcher.
- *Opuntia microdasys*—branching pads, white form is beautiful, don't touch.
- *Rebutia senilis*—dense white spines, brilliant red flowers.

Other plants would be equally as good. The suggestion is to select just a few that represent the variety of choices.

Where do you get these and other cacti? That probably depends upon where you live. In southern California they are readily available from many sources, the speciality nursery for cacti and succulents, most general nurseries, even supermarkets. Local cactus societies are an excellent source. Cacti are bought by mail everywhere and the suppliers are numerous. There is much to be said for getting good plants that are properly named. An easy and practical way to learn about where to get what you want is to ask another hobbyist.

Hobbyists the world over have one thing in common and that is they like to share their interest. Fortunately for cactophiles, there are many societies and clubs throughout the world. They are numerous

in the United States and Great Britain and there are groups in Europe, Australia, Mexico, and elsewhere. The advantages of seeking out and joining these groups are many. Obviously they are an enormous source of help and information. You can not only find out where to get plants but also, many groups actually make plants available to their members at reasonable costs. They have programs, shows, libraries, social activities and most of all there is the enthusiasm and encouragement of sharing a common interest. These groups are equally interested in all the other succulent plants in addition to just the cacti. New members soon expand their interests. The local clubs are usually affiliated with a national or international society. These broader based organizations also publish informative and scholarly journals.



*Barrel cactus*  
Photo by Betty Mackintosh



*Many cacti may be displayed in a limited space*  
J. B. MYERS photo

Now back to those first few cacti that are the nucleus of your new hobby. How do you take care of them? Cacti are what they are because they have learned to cope with changing conditions. They have evolved and adapted to those parts of the western hemisphere—their native home—where there is little annual rainfall. They can grab the water when it is available and conserve it for continued living. This tells us something about how to care for cacti.

In cultivation, conditions vary so greatly that there can be no exact method that would reasonably apply to all conditions. But something can be said about the basic factors like soil, watering, plant food and light. The soil must be porous and the container must allow the water to drain completely. Every hobbyist sooner or later develops a soil that gives good results. A mixture of one-half rich potting soil and one-half coarse rough sand is a safe mix. When the mix gets fairly dry water thoroughly, until the water drains out the bottom. Cacti need more water during their growing season and less—sometimes almost none—during the dormant period in winter. They need food from time to time but not much. Low nitrogen fertilizers at half strength once or twice during the growing season is a good starting point. Cacti need a lot of light—all they can get in the north—but very few can take the direct intense sun of the tropics. In nature they solve this problem by their own self protection with hair and spines or by growing in partial shade. Over-kindness is probably the most common cultural error.

Hobbyist like to grow good-looking plants and then gradually expand their collection to include more and more of the thousand or so species that are now

available. There are many ways to enjoy them all. They make excellent dish gardens. In mild climates they can be used in landscaping, either as an accent or theme of a design. Cacti are now being used by interior designers instead of the typical leafy plant or palm for the unusual in modern homes and offices. The very diversity of cacti provides endless opportunity to express a personal creativity.

Cacti as a new hobby can be rewarding and a challenge. The rewards are the never-ending discovery of the new, the beauty, the bizarre, and the different. The challenge is to understand how it is that nature evolved this special creation that survives through adversity. There is something in this that man can relate to—something he recognizes in himself. □

*Mr. Myers is a cactus hobbyist and a past president of the Palomar Cactus & Succulent Society.*



*A small patio table collection*  
J. B. MYERS photo

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One tree brought from India in 288 B.C. to Ceylon is the oldest historical tree known. Another tree in Bombay is said to be three thousand years old.

D.P.W.

(Taken from *In the Garden in Hawaii* by Marie Neal)

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# NEWCOMERS TO THE BEGONIA GARDEN

by Pat Maley



WE ARE AT a high point in the history of begonia hybrids, for recent years have brought begonia lovers some of the most outstanding hybrids of all time. Begonia fanciers are welcoming many unusual new plants to the scene, to be grown in their gardens, lath-houses, greenhouses, and homes. Some of the best of these newcomers deserve formal introduction to garden enthusiasts. Perhaps these brief views of a few of the newer begonias will act as appetizers, whetting your appetite for the joys and varieties of the begonia family.

*Begonia* 'Tiger Kitten' is a distinctive rhizomatous begonia developed by Leslie Woodriff of McKinleyville, California. The small leaves (to 3 inches), lime green with dark brown veining, are really eye-catching. Growth is compact and spreading, forming a nice mound of colorful foliage. This begonia is quite tolerant of low light and is not fussy about humidity. These assets, along with its compact growth habit, make it an excellent plant for the house. In spring literally hundreds of small, light pink flowers rise above the foliage.

*B.* 'Nokomis' is a San Diego hybrid, developed by Margaret Lee in her San Diego garden. This upright cane-stemmed begonia will grow to 4 feet or more and does beautifully in shade gardens or lath-houses. The 6-inch leaves are heavily silvered, with green stripes along the veins. The leaf edges tend to curl slightly upward, revealing the pink undersides. *B.* 'Nokomis' flowers spring through fall, with pendulous clusters of dusty pink blooms.

*B.* 'Lubbergei' comes to us from Japan, and is certainly one of the most delightful low growing canes to be seen. Developed by Mr. Uemura in 1966, it is a cross of two species. *B. dregei* X *B. lubbersii*. The leaves average 3 by 6 inches at maturity. Leaf color is a bronzy olive green. The deep red veins on the reverse glow through, giving added color. *B.* 'Lubbergei' has very large blossoms, which in deep shade are white to pale pink. In a location with a bit of morning or late afternoon sun, they are nearly red.

The blossoms hang profusely on this branching, upright plant.

*B.* 'Sweet Magic' has quickly worked its magic to win the hearts of begonia growers all over. This is another beauty from Leslie Woodriff. It is an unusual cross of a very large-leaved, fragrant flowered species, *B. megaphylla*, with tiny, spiraled *B.* 'Bokit'. Leaves are large, to 10 inches, and of heavy olive satin, with folds, twists, and curls giving frequent glimpses of the deep red reverse and near-white veins. Spring brings a multitude of tiny flowers, fragrant in the morning air. This is a sturdy growing begonia, of heavy texture, easily grown in pot or hanging basket. It does add "sweet magic" to anyone's collection.

*B.* 'Emma Walker' is a low-growing cane. Its large leaves (to 11 inches) are distinctively pointed on both ends. Developed by Goldie Frost of Garden Grove, California, *B.* 'Emma Walker' has lovely large pink blooms. The female blooms are especially pretty with apple green ovaries and pink petals. This makes an excellent pot plant, or can be grown in the ground. □

Drawing by the author.

PAT MALEY is active in the American Begonia Society as president of the San Miguel Branch, co-director of the judging department, and author of many articles published in "The Begonian." She illustrates for this magazine, "The Begonian," and "Light Garden."

# The Aristocratic Artichoke

by Rosalie Garcia

LIKE MANY OTHER immigrants to California I, too, was puzzled and curious about the variety of fruits and vegetables in the markets. Among the vegetables new to me were the green cone-like balls that I learned were artichokes. My immediate circle of friends were then mostly Iowans who had not tasted them or had so ignored them that they did not know the name. One of my friends was a gourmet cook who delighted in trying new things and had cultivated a fondness for them. She invited me to dinner and served artichokes for my benefit. (Her husband thought them not worth the bother to eat.) She had steamed and served them on a separate plate with a tiny paper cup of melted butter flavored with herbs. She showed me how to pull off bracts one at a time, dip them in butter, skin them off with my teeth and lay them in a neat row on the plate, then, cut out the "heart" or base of the flower bud and dip it in the remaining butter. I like it and was hooked on the common globe or French artichoke we see for six or more months of the year in our markets.

The artichoke, which does not tolerate freezing temperatures, grows best in our California cool coastal valleys. It also grows in the southern states, mostly along the Gulf of Mexico. It is believed to have come from southern Asia to the Mediterranean area of Europe several hundred years ago. The Greeks and Italians appreciated it first, then it went up to France and Belgium where it was elevated to haute cuisine and was grown in hot houses. The French found that the hearts, marinated in a tangy dressing, made an excellent appetizer and they even inspired the canning of the hearts. These have found their way to our cocktail circuit, where they are easily served when chilled, and expensive enough to be something "special."

The Italians adopted the artichoke as their own and made it a staple. They discovered it lent itself to stuffing with a mixture of bread crumbs, cheese, and anchovies moistened with olive oil and



*Dried artichoke blossoms in three states of development*  
Photo by Robert L. Francis

placed between the bracts, set in a pan of water and poached in the oven for about 30 minutes, not allowing the water to boil. This can be a main dish and is good hot or cold. I noted it served on platters as an offering on St. Joseph's Day in New Orleans.

Since the immature flower is the edible part, taking a special technique to prepare and eat, it is not a common staple in our diet. Each bract used to have a sharp thorn-like point at the tip, but hybridization in the last few years has eliminated the thistle aspect and the thicker, more tender bract now has an inverted scalloped edge.



The globe artichoke, *Cynara scolymus* is actually a thistle—a member of the sunflower family, Compositae. It is a dramatic and magnificent plant that responds to rich, well-drained soil by growing 6 to 8 feet tall. The large, gray-green, pinnate lower leaves were eaten by early growers. The many-branched plant is decorative when grown among other vegetables or flowers and it makes a splendid background for lower growing plants.

To start new plants take sprouts that come up in early spring from the roots of plants that have died down after blooming. Cut the sprout from the root and plant 3 or 4 feet from any other plant. Or plant seed in a seed box. The seed process is slower and the plants may not bloom the first year. Since it is a perennial, once it is established it will come up and produce for several years, but not indefinitely.

If one eats every bud, one may never see the brilliant blue, fuzzy blossoms that dry into beige, fluffy balls, prized for dried flower arrangements. They may even be sprayed in all colors. I am told some of the flowers are white, but I have seen only the blue, which are preferable as far as I am concerned.

Although the globe artichoke may seem to have escaped to the wild, it really has not. The one we have has been improved from the wild one.

Another plant of the cynara genus is the cardoon which does grow wild, produces a purple flower and is the main source of the dried ones sold

for flower arrangements. This one is eaten by some people, principally orientals, but has not caught on in the United States generally.

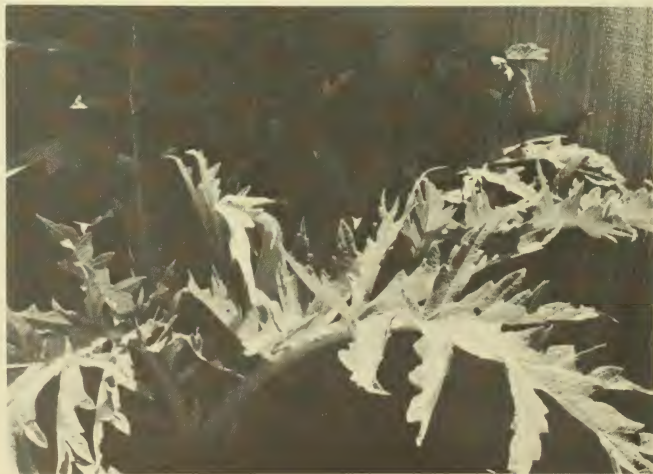
We have another vegetable called the Jerusalem artichoke, *Helianthus tuberosus*, which is mysteriously named and is nothing like the globe. It too, is of the sunflower family. We do not eat the flower of this one; we eat the root or cluster of tubers. It has no connection with Jerusalem, but was found in Chili by Italian explorers in the 17th century, taken to Italy where it was appreciated and called girasole (turning toward the sun). Later it was brought to the United States. Whether the mispronunciation of girasole, sounded a little like “Jerusalem,” and became the origin of the name, or the name was picked out of the blue, no one has been able to establish. The connection with artichoke is a greater mystery, unless some one noted the delicate nut-like flavor of both vegetables and said the tuber was like the flower bud artichoke. Who knows?

We find little packages of knotty, yellow-brown tubers in our markets labeled sunchokes, but there is no great demand. Eat them raw, sliced in a salad, marinate in a dressing, or cook as one does Irish potatoes. I like them best boiled and mashed with butter and seasoning. I remember being at a luncheon where one of the guests was passing out a tuber to each guest and extolling the healthful properties and fine flavor of the little tuber. When she gave one to

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*Globe artichoke, a dramatic and magnificent plant, responds to rich, well-drained soil*

Photo by Robert L. FRANCIS



the father of the hostess, a retired midwestern farmer, he was not impressed, and remarked "Yes, I know all about them. I used to raise tons of them for my hogs."! I will never forget the crestfallen look of the health food enthusiast. It is true these little tubers are rich in digestible starch and some say if the tubers are eaten within a few hours after digging, they are most digestible and effective.

Since they are sunflowers that grow up to 8 feet tall and bear smaller flowers than the globe artichoke, they are best planted back of other plants. Put the tubers in a trench of rich soil about 4 inches deep, keep it fertilized and watered. I had a row against an east brick wall and had tubers for years. Dig them as needed, in order to have them fresh.

There is another root artichoke I have not seen. It is known as the Chinese artichoke, which appears to grow up to 2 feet long in graduated lobes. One would need rich soil over 2 feet deep, and who has that in California, except maybe in some of our inland valleys?

The artichokes, both roots and flowers, may never become staples to Americans, but we are a diverse people of many origins, and have choices not available to any others. Take advantage! □

Rosalie Garcia, a real dirt gardener, likes to experiment with new plants, especially vegetables. She is well known in southern California through her lectures on exotic fruits and vegetables, and on herbs.



## THE BOOK SHELF

### PATIOS AND GARDENS OF MEXICO

*Patricia W. O'Gorman*, New York: Architectural Book Publishing Company, 1979, 254 pages, \$19.95

Mexico, with its heritage of Mayan and Spanish art culture, and its tradition of outdoor living, is a perfect theatre for this book. Primarily a picture book with 300 expert photographs by Bob Schalkwijk, it records vistas of gardens of scores of Mexican homes and public buildings, many now abandoned, with their elaborately carved and detailed gates, terraces, fountains and pools, balconies and even furniture representing some four centuries of architecture and domestic living.

Patricia O'Gorman is the niece of Juan and Helen O'Gorman, born in Mexico City. Helen O'Gorman is widely known for her drawings of plants, some of which are reproduced in the book. Schalkwijk is a native of Holland who has lived for many years in Mexico.

With its meticulous recording of rich colonial detail and modern experimentations in outdoor living, this book should be a source of inspiration for landscape designers in southern California, which is one in spirit with the Mexican experience.

—Reviewed by Russell MacFall

### ORCHIDS AS HOUSE PLANTS

*Rebecca Tyson Northen*, New York: Dover Publications, Inc., 1976, 148 pages, illustrations, \$2.50

To one who has never even held an orchid in his hand, Mrs. Northen manages to make growing orchids in your home sound like nursing the Dionne quintuplets into life. But the quint made quite a stir in the world, as some of the older readers of this magazine will recall, so perhaps any amount of tender and loving care is justified by having a cattleya or cymbidium to call your very own. Mrs. Northen's directions for providing the correct lighting, temperatures, potting, and environments and for guarding against disease and unfavorable conditions are explicit. This is the second revised edition of her manual, with 63 illustrations.

—Reviewed by Russell MacFall

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# CONTAINER FICUS

by Sharon Siegan

Right: The graceful, willowy and ubiquitous weeping *F. benjamina*

Photo by Bill Gunther



YEARS AGO IN Chicago a stately living sculpture graced the glass coffee table dominating our living room. It rose from a single trunk out of its Spanish ceramic pot, alternately stretching forth large, deeply veined, leathery leaves, whose undulating outline was vaguely fiddle-shaped. This was our ficus, *F. lyrata*, seemingly a perfect companion for a high-rise apartment; and so it was, for a time until its tree potential began to be manifest. Leaf by lost leaf, it exposed a bare ugly stem, becoming top heavy when new growth surpassed the size of some of the remaining lower projections. And then a miracle happened: the trunk, having been severely bruised in several places, did not heal; instead the wounded areas gave birth to an outcropping of leaves which soon began to branch, resulting in a pleasing new silhouette.

That was my introduction to ficus and to regeneration. When we moved to California, I was astonished to discover that plants bearing no visible resemblance to my ficus, were nevertheless accredited members of the genus. In particular, I found it hard to accept the graceful, willowy and ubiquitous weeping banyan, *F. benjamina*, as a clan member.

Ficus, is however, a truly remarkable genus. It comprises some 800 species, exhibiting great diversity in growing habits (including vines, epiphytes and the multiple trunked banyans), and leaves ranging in size from the small and dainty to the elephantine. The common denominator is the fruit. Ficus means fig, and each species will bear clusters of figs (edible only if from *F. carica*), some as small as peas and others about like a plump plum.

Now most people who grow ficus do not care a fig about the figs. In decorative container plants, they are seldom a consideration for selection. Indeed, they may well be regarded as a nuisance, as for example *F. roxburghii*, where the small, concealed fruit is constantly falling off. But for the most part indoor conditions do not encourage fruiting of the more popular species.

Ficus are usually chosen on the basis of appearance—with leaf size the determinant. In nature, the large, thick-leaved types are tropical, growing in bold, exotic shapes nourished by a rich moist soil. Clinging tenaciously to their leaves, these ficus stand

(Continued on Page 90)





Top left: *Ficus elastica*

Top right: *F. religiosa*

Bottom left: *F. nitida*

Bottom right: *F. lyrata*

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Photos by ROBERT L. FRANCIS

stiffly upright against storms and are felled. But they recover well, regenerating whole branches when balmy weather prevails.

The narrow, thin-leaved species usually respond to intermittent rainfall. Some are endemic to rain forests with seasonal drought. Others are natives of more arid highlands. As a group they bend to the wind and readily relinquish their foliage, greening out again when conditions permit. This explains ben-jamina's propensity to leaf drop whenever temperature or ventilation changes exceed its preference.

Irrespective of leaf size, most ficus are trees. And perversely, this may be one explanation for their popularity as container choices—indoors and out.

They are substantial specimen plants. With proper selection and attention to their needs, they will perform well, enhancing their environment for long periods of time.

The large-leaved varieties are bold in design, making them appropriate companions for modern decor—to add a lush tropical accent and set off primitive art. The most familiar are *F. lyrata* and *F. elastica*, the latter known familiarly as the India rubber tree. This popular name derives from the milky sap or latex exuded from a bark break, another ficus characteristic. Although some ficus have constituted a rubber source, the rubber of commerce comes from a non-related Brazilian tree.

Lyrate and elastica both respond to moderate or filtered light. Pot them with good drainage, and water regularly so that soil is evenly moist, adding a liquid fertilizer every two to four weeks. This will keep elastica's broad leaves shiny and promote the profuse new growth so attractively enveloped by rosy sheaths. It will also encourage uniformity of leaf size and delay the inevitable loss of lower leaves. But sooner or later these plants will become trees, and unless severely pruned, outgrow their habitats.

Large-leaved ficus are excellent candidates for air layering (as a way to propagate new plants or rid yourself of straggly tops and/or branches). Cut deeply into the heartwood below a node, bind the wound with sphagnum moss and apply a plastic tourniquet. When roots appear, sever just below them and replant. In warm climates, if you prefer to retain your tree full-size, transplant it outdoors. It will remain decorative and contribute a tropical lushness to the landscape, but beware of where you plant one. Once removed from container confinement, these roots will begin to spread, seeking out cool dampness. Coupled with their shallow penetration, they will invade house foundations, driveways, and walks.

*F. roxburghii* is another most dramatic container plant. Its broad, sandpapery leaves and spreading habit give a strongly patterned look, and the rich, mahogany red of new growth is particularly attractive. For proper display, it requires a large container. Unlike other large-leaved kinds, *F. roxburghii* tends to be briefly deciduous. However, given water and temperature control, new leaves will emerge as the old are being shed.

The smaller-leaved ficus are quite elegant and delicate, making them suitable choices for traditional or oriental decor. Along with the popular benjamina, are *nitida*, *diversifolia* and *religiosa*. These species seem more temperamental indoors but are quite hardy as patio plants. Perhaps our controlled interior climate makes them less virile and more sensitive to change, triggering their leaf-drop protective mechanism. Even outside, wind protection is necessary to keep them evergreen. The small-leaved ficus generally require less moisture and feeding than their broad-leaved cousins, but are more demanding of basic comforts.

*F. diversifolia*, the mistletoe fig, is rather slow-growing, topping out at 8 to 10 feet, making it a pygmy among ficus. It is valued for its open,

twisted branch pattern and known for assembly line (non-edible) fig production.

*Nitida* is quite similar to benjamina, being somewhat more upright in habit. Unfortunately it is subject to thrips, but this is seldom a problem indoors.

The major attraction of *F. religiosa* is its curious foliage—almost a caricature of the benjamina. Its somewhat heart-shaped leaves are drawn into an exaggeratedly elongated tip, designed to siphon water off, a decided advantage in its rain-forest homeland. *Religiosa* also retains the alarming habit of shedding all of its leaves in April or May and remaining barren for some weeks, no matter how protected its new environment. □

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*More information about this fascinating plant family is planned for a future issue of this magazine.*

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Sharon Siegan, an artist-sculptor turned gardener and flower arranger, spends many hours in her garden. She is a National Council of State Garden Clubs, Inc. accredited flower show judge.



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## GROWING TREES INDOORS

*D. J. Herda*, Chicago: Nelson Hall, 1979, 254 pages, \$13.95

If you have a living room big enough for a magnolia and a couple of maple trees, Mr. Herda will tell you how to keep them fit companions for you. He lists some 150 species of trees and shrubs that will grow in containers indoors. Obviously, carrying for them is not child's play, so he goes the whole route—pruning, keeping the new tenants properly lighted, watered, well nourished, protected against bugs, and even gives advice about companionable flowers for the trees. The author, a resident of Wisconsin, has a somewhat folksy style but he is also highly practical. An araucaria anyone?

—Reviewed by Russell MacFall

## HYBRIDS AND HYBRIDIZERS, RHODODENDRONS AND AZALEAS FOR EASTERN NORTH AMERICA

Edited by *Philip A. Livingston* and *Franklin H. West*, Harwood Books, Newtown Square, Pa., 1978, 256 pages, \$25.00

Occasionally a book comes along that appears to speak the last word on its subject. Such is this one, for as David G. Leach, President of the American Horticultural Society, writes: "This book constitutes a unique record of hybridizing rhododendrons in the eastern United States. Its like is not to be found on this or any other genus, at any other time, in any other place, in the history of horticulture."

Livingston, a retired publisher of books on natural history, has seen to it that this one sumptuously proclaims its importance. Large in format, it contains 108 color plates of rhododendrons and azaleas, principally those bred by the five major personalities of the text. In addition, some 1,400 varieties are mentioned or described and recommendations for planting according to weather zones are listed. With all this grandeur, perhaps the most appealing pages in the book are those devoted to letters from the major hybridizers, in which they tell of their problems, methods, and delightfully modest pride in their achievements.

—Review by Russell MacFall

Mr. MacFall, a retired newspaper publisher, is an author and finds gardening a relaxing hobby.

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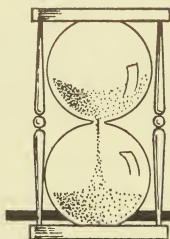
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# NOW IS THE TIME

## BEGONIAS Margaret Lee

- ✓ to keep feeding plants on a regular schedule as they are in active growth, use  $\frac{1}{4}$  strength once a week.
- ✓ to water as needed—keep moist but NOT wet.
- ✓ to keep mildew under control as well as insects, slugs, and snails.
- ✓ to keep growing area clean—keep all dead leaves and old blooms picked up.
- ✓ to prune plants for shaping and to encourage side-growth; do this gradually—about 1/3rd of the plant to avoid shock.
- ✓ to do repotting if needed; use a light porous mixture.
- ✓ to protect from too much sun and drying winds.

## BONSAI Dr. Herbert Markowitz

- ✓ to shape deciduous trees by pruning, but only finger-prune evergreens with small needles.
- ✓ to defoliate most deciduous trees in June. These may be transplanted afterwards.
- ✓ to develop a watering schedule—avoid overwatering, especially the pines.
- ✓ to fertilize trees with an organic fertilizer. Do not over-feed the pine trees.
- ✓ to rotate trees often to maintain proper shape.
- ✓ to check for insects; use a mild insecticide, if necessary.
- ✓ to place trees to receive optimal sun, but not full sun after 11:00 a.m. for trees that may sunburn.
- ✓ to control any mildew that might appear; use sulphur dust or a liquid spray.
- ✓ to enjoy the beauty of your trees.

## BROMELIADS Dr. Norman Lurie

- ✓ to protect your plants from snails and slugs; place bait around the plants, not in the cups.
- ✓ to groom plants and remove offsets. These can be re-potted to increase your plants.
- ✓ to feed with a balanced fertilizer.
- ✓ to protect foliage from sunburn.
- ✓ to keep cups clean and filled with clean water.
- ✓ to maintain humidity around plant area.

## CACTUS & SUCCULENTS Verna Pasek

- ✓ to start grooming plants for shows and fairs.
- ✓ to make landscape design changes.
- ✓ to move plants to more desirable locations, for focal point or preference of more sun or shade.
- ✓ to check drainage of plants, in the ground or potted. Soil must be porous to ensure percolation so important for healthy root system.
- ✓ to fertilize with 10-10-10 to promote flowering.
- ✓ to watch for slugs and snails.
- ✓ to check underside of leaves and inside rosettes of succulents for insects; watch for mealybugs and aphids.
- ✓ to check for scale—use malathion or soapy water to remove.

## CAMELLIAS San Diego Camellia Society

- ✓ to transplant plants that have started new growth.
- ✓ to repot plants that have outgrown their containers.
- ✓ to start a feeding program; use an acid type fertilizer; cottonseed meal, special camellia mixes, or liquid fish.
- ✓ to water well the day before feeding—NEVER fertilize a dry plant.
- ✓ to maintain a regular watering schedule. Do not allow plants to completely dry out.
- ✓ to mulch plants with redwood compost.
- ✓ to watch for leaf beetles; spray or dust to discourage.
- ✓ to prune for shaping and thin out center wood for good air circulation.

## DAHLIAS Abe Janzen

- ✓ to plant smaller varieties and give regular care to growing plants.
- ✓ to draw soil around the plants as they grow.
- ✓ to feed with low-nitrogen fertilizer (4-10-10) either dry or liquid.
- ✓ to spray weekly to guard against leaf miners, thrips, and aphids.
- ✓ to pinch out center when two or three sets of leaves form.
- ✓ to water when top of soil is dry; when buds are forming, soak deeply and more often.

(Continued on Page 94)

## EPIPHYLLUMS Mary & Warren Kelly

- ✓ to prune plants to shape—take cuttings after flowering.
- ✓ to put out snail bait and watch for other pests.
- ✓ to remove wilted flowers by cutting about ¾ inch from stem, unless you desire seed to form.
- ✓ to take care in watering. Do NOT allow to dry out; keep soil damp but NOT wet.
- ✓ to give plants a balanced food after blooming season.
- ✓ to stake long spindly growth.

## FERNS Ray Sodomka

- ✓ to water thoroughly—maintain humidity by wetting surrounding areas.
- ✓ to fertilize with high-nitrogen, using liquid or pellets twice a month.
- ✓ to plant spore.
- ✓ to spray for aphids and scale, if necessary.
- ✓ to remove dead fronds.

## FUCHSIAS William Selby

- ✓ to pinch plants for bushy growth and for shaping.
- ✓ to feed with high phosphorous/potash fertilizer for bud and bloom.
- ✓ to keep containers clean inside and out.
- ✓ to watch for insects; spray if necessary for whitefly, inchworms, and aphids. Do NOT use oil spray.
- ✓ to turn baskets regularly so they do not become one-sided.
- ✓ to remove all spent blooms, seed pods, and old or misformed leaves.
- ✓ to water only when needed; do NOT overwater, but keep moist.

## GERANIUMS Carol Roller

- ✓ to water thoroughly when plants become somewhat dry. Keep foliage as dry as possible.
- ✓ to feed with a balanced fertilizer in liquid form, using one-half strength twice as often without allowing plants to develop deficiencies.
- ✓ to continue a pest control program for sucking and chewing insects, as well as slugs and snails, using products according to directions.
- ✓ to groom plants by removing old discolored leaves and faded flowers.
- ✓ to remember never feed a dry plant, and never spray a dry or hungry plant.
- ✓ to protect tender plants from the sun if temperatures are high.
- ✓ to continue to rotate pots on a regular basis to produce well-shaped plants.
- ✓ to enjoy your geraniums at the height of their season.

## GESNERIADS Mike Ludwig

- ✓ to feed, feed, feed. This is important to have a good plant later in the year.
- ✓ to keep alert for pests and spray with a non-oil base spray to prevent leaf damage.
- ✓ to put cuttings down to increase your collection.
- ✓ to prolong flowering by keeping spent flowers picked off.
- ✓ to mist foliage in the morning and evening on HOT days, but water in the evening NEVER in the morning on HOT days.

## HEMEROCALLIS Sanford Roberts

- ✓ to combat aphids with a systemic spray.
- ✓ to dig and divide crowded clumps, if bloom is less than desired.
- ✓ to fertilize established clumps with 5-10-10 formula. Southern California growers report additions of soil sulphur proves beneficial to growth and bloom.
- ✓ to attend accredited shows to view blooms and decide on colors and varieties to add to your garden.
- ✓ to order new cultivars from local area growers.

## IRIS San Diego—Imperial Counties Iris Society

- ✓ to prepare beds for planting and transplanting. Work in humus, soil sulphur, and some well-decomposed manure.
- ✓ to transplant tall-bearded after blooming.
- ✓ to allow cut surfaces of a tall-bearded rhizome to dry and be exposed to the sunlight before replanting, or give a light dusting of soil sulphur. May place in vitamin-B solution for awhile before planting.
- ✓ to keep watering while still blooming.
- ✓ to feed spurias with a low-nitrogen fertilizer.
- ✓ to feed tall-bearded a high-nitrogen fertilizer after blooming IF they are not to be transplanted.
- ✓ to feed Siberians after bloom with a balanced fertilizer to form bloom for next year.
- ✓ to feed Louisianas with a balanced food, but wait until June to dig and transplant.
- ✓ to feed Japanese iris with camellia food; add to water in which they are growing.
- ✓ to watch for aphids; may use a systemic insecticide.

## ORCHIDS Charlie Fouquette

- ✓ to start high-nitrogen feeding of cymbidiums for new growth.
- ✓ to give a balanced fertilizer to phals and cattleyas.
- ✓ to continue heavy watering of cymbidiums.
- ✓ to spray and mist on hot dry days.
- ✓ to mist seedlings in mornings and early afternoon so they will be dry before nightfall.
- ✓ to maintain pest control against red spider, mealybugs, and scale; use malathion or other non-oily spray.
- ✓ to control snails—use metaldehyde or other poison.
- ✓ to keep exterior planting media moist.
- ✓ to check glasshouses for area getting too much sun; can paint or erect shade cloth if too much light.

## ROSES Brian Donn

- ✓ to keep bushes well watered during hot dry spells.
- ✓ to avoid spraying with insecticides or fungicides under very hot conditions.
- ✓ to keep weeds and grasses cleared from around and under the bushes; they are breeding ground for spider mites.
- ✓ to always remove spent blooms to encourage new growth. On strong bushes, cut 1/3 to 1/2 of the flower stem with dead flowers. On new or weaker bushes, simply snap off the bloom and save as much foliage as possible.
- ✓ to feed with a balanced plant food.
- ✓ to mulch the bushes to keep cool and save water.
- ✓ to check for rose-slugs and/or worms.
- ✓ to continue preventative spraying for mildew control; can use Acti-Dionne PM to remove mildew.

## VEGETABLES George James

- ✓ to plant seeds of carrots, beets, and similar root vegetables, snap beans, summer squashes, corn, and cucumbers, or started plants may be used, if available.
- ✓ to remember the weather in May and June is often overcast and not warm enough for some kinds of vegetables to do their best.
- ✓ to plant a little later, when the weather is warmer, cantaloupes, lima beans, pumpkins, watermelons, and winter squashes.
- ✓ to plant lettuce and spinach in a partially shaded location. Endive and New Zealand spinach can be used during the hotter months or in warmer locations.
- ✓ to remember fertilization is necessary to grow succulent vegetables. Soil with a low-nutrient level or filled with roots from nearby shrubs and trees need to be fertilized more often.
- ✓ to fertilize vegetables in good soil every 3 or 4 weeks, except corn.
- ✓ to feed corn when plants are 8 inches tall and again when 18 inches tall.
- ✓ to feed lettuce once when about half grown.
- ✓ to feed tomatoes once a month after fruit starts to form.
- ✓ to use a fertilizer blended for use on vegetables; apply as directed. It is safer to fertilize more frequently than to increase the amount of fertilizer used.
- ✓ to apply fertilizer to moist soil and to water after application.
- ✓ to irrigate vegetables by flooding, furrows, or drip method instead of overhead watering to reduce the possibility of leaf diseases.

Penny Bunker actively participates in many plant societies and she and her husband Walter grow iris, orchids, and roses—to name but a few.

### CORRECTION

The orchid picture on the back cover of Mar-Apr 1980 should have been titled *Dendrobium Donnesiae*, "The Garden" Sept. 1895



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